Title (en)

METHOD FOR COOLING AN INTERNAL COMBUSTION ENGINE USING A VERY LOW WATER HEAT TRANSFER FLUID WITH REDUCED LOW TEMPERATURE VISCOSITY

Title (de)

VERFAHREN ZUR KÜHLUNG EINES VERBRENNUNGSMOTORS UNTER VERWENDUNG EINER WASSERARME WÄRMEÜBERTRAGUNGSFLÜSSIGKEIT MIT VERRINGERTER NIEDRIGTEMPERATURVISKOSITÄT

Title (fr)

MÉTHODE DE REFROIDISSEMENT D'UN MOTEUR À COMBUSTION INTERNE UTILISANT UN FLUIDE CALOPORTEUR À TRÈS FAIBLE TENEUR EN EAU PRÉSENTANT UNE VISCOSITÉ RÉDUITE À BASSE TEMPÉRATURE

Publication

EP 3292098 B1 20210721 (EN)

Application

EP 16790151 A 20160506

Priority

- US 201562158262 P 20150507
- US 201562158338 P 20150507
- US 2016031195 W 20160506

Abstract (en)

[origin: WO2016179485A1] A very low water (VLW) heat iransfer fluid, having an atmospheric boiling point of about 148°C (about 300°F) and a low temperature operating limit (LTOL) of -40°C or below, comprised of one or more polyliydric alcohols, one or more corrosion inhibitors, and between 5% and 10% water. The heat transfer fluid retains many of the features of a non-aqueous heat- transfer fluid, while providing a substantially lower viscosity. The heat transfer fluid is suitable for use in internal combustion engines as an engine coolant and in other heat transfer applications.

IPC 8 full level

C07C 31/20 (2006.01); **C09K 3/18** (2006.01); **C09K 5/10** (2006.01); **C09K 5/20** (2006.01)

CPC (source: EP KR US)

C09K 5/10 (2013.01 - EP KR US); **C09K 5/20** (2013.01 - EP KR US); **F01P 3/00** (2013.01 - EP KR US); F01P 2003/003 (2013.01 - EP KR US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

WO 2016179485 A1 20161110; BR 112017023945 A2 20180724; BR 112017023945 B1 20211214; BR 112017023945 B8 20220125; CA 2985205 A1 20161110; CA 2985205 C 20231031; CN 107709281 A 20180216; CN 107709281 B 20210309; EP 3292098 A1 20180314; EP 3292098 A4 20181226; EP 3292098 B1 20210721; JP 2018523042 A 20180816; JP 6873047 B2 20210519; KR 20180004760 A 20180112; MX 2017014149 A 20180413; US 10280828 B2 20190507; US 2016326940 A1 20161110; ZA 201707374 B 20190227

DOCDB simple family (application)

US 2016031195 W 20160506; BR 112017023945 A 20160506; CA 2985205 A 20160506; CN 201680026297 A 20160506; EP 16790151 A 20160506; JP 2017557932 A 20160506; KR 20177035000 A 20160506; MX 2017014149 A 20160506; US 201615148306 A 20160506; ZA 201707374 A 20171030